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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/585,568 06/02/00 KARGER

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EXAMINER

JIMENEZ, M

ART UNIT

PAPER NUMBER

3726

DATE MAILED:

10/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/585,568

Applicant(s)

KARGER ET AL.

Examiner

Marc Jimenez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) 4-10, 37, 40 and 42-60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11-36, 38, 39 and 41 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, Species C in Paper No. C is acknowledged. The traversal is on the ground(s) that the process recites that the filler is combined into the elastic matrix material and therefore there is no showing of distinctness. This is not found persuasive because the product as claimed can be made by another and materially different process such as a process without applying a combined elastic matrix material and metallic filler onto an outer side of the hard roller core. For instance, the elastic matrix could be placed on the hard outer roller core and then the metallic filler placed or imbedded on top of the elastic matrix after the elastic matrix is placed on the hard outer roller core. It is noted that there is a serious burden in searching two patentably distinct inventions as noted in the restriction requirement since a search for the process claims would not necessarily entail a search of the product claims. In searching for product claims, the particular process of making the product is irrelevant to the particular product itself.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-3, 11, 14-25, 28-32, 35, 36, 38, 39, and 41** are rejected under 35 U.S.C. 102(b) as being anticipated by Sukenik (3,852,862).

Sukenik teaches the following in *Fig. 1*: an elastic roller comprising: a hard roller core **12**, an elastic (col. 1, line 63, ie. "resiliency") coating layer **13** at an outer side of the hard roller core **12**, the elastic coating layer **13** comprising an elastic matrix material (col. 2, lines 2-3, ie. "various inorganic or organic binders") and fillers (col. 2, line 2, ie. "fibers") imbedded in the matrix material (col. 2, line 24, ie. "fiber mix"), at least a portion of the fillers (col. 2, line 2) comprising metallic fillers (col. 1, lines 61-62, ie. "metallic wools").

Note that the hard roller core **12** comprises metal (col. 1, line 55), and the metallic fillers comprises metal (col. 1, lines 61-62), note that the roller is adapted (can be used) for smoothing paper webs, the metallic fillers are metal fibers (col. 2, lines 52-56), a portion of the fibers is aligned in the axial direction (see figure), at least a portion of the fibers comprises a predominant portion of the fibers (col. 2, lines 55-57), at least a portion of the fibers is aligned in the radial direction (see figure), at least a portion of the fibers is aligned in statistical distribution (see figure), the fibers are arranged in one of a fiber layer and radially sequentially arranged fiber layers (see figure), the elastic layer further comprises additional fillers (col. 1, lines 57-63) arranged in the elastic matrix **13**, the additional fillers comprise fibers including at least one of carbon and glass fibers (col. 1, lines 60-61), the additional fillers comprises at least one of quartz and PTFE (col. 1, lines 60-61), the metallic fillers are arranged to extend up to a radially outer surface of the elastic matrix material (see figure), a thermal conductivity of the metallic fillers is considerably higher than a thermal conductivity of the matrix material (the fillers are made of

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metal, hence having a higher conductivity), the metallic fillers are arranged to extend radially inwardly up to a surface of the hard roller core **12**, the thermal expansion coefficient of the metallic fillers is smaller than a thermal expansion coefficient of the matrix material (the fillers are made of metal, hence having a smaller thermal expansion coefficient), the roller core and the fillers are made of metal and have substantially the same thermal expansion coefficient, since the layers are “built up” (col. 2, lines 5-10), the coating layer **13** comprises a functional layer (outermost built up layer) arranged in a radially outwardly region and a connecting layer (innermost built up layer closest to the hard roller core **12**) arranged in a radially inwardly region, the connecting layer is adapted to connect the functional layer to the hard roller core **12**, the metallic fillers are arranged at least in the functional layer (see figure), the matrix material comprises a resin-hardener combination (col. 2, lines 2-3, ie. “inorganic or organic binders”), a concentration of the metallic fillers is substantially uniformly distributed within the elastic matrix material (see figure), and a concentration of the metallic fillers increases in a radially inwardly direction toward the hard roller core (col. 1, lines 43-46 and col. 2, lines 56-60).

With respect to Claim 21, note that the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

4. **Claims 1-3, 11, 14-23, 25, 28-31, 33-36, and 38** are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe (4,368,568).

Watanabe teaches the following in *Fig. 1-6*: an elastic roller comprising: a hard

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roller core 1, an elastic coating layer 2 at an outer side of the hard roller core 1, the elastic coating layer 2 comprising an elastic matrix material and fillers (col. 3, lines 50-65) imbedded in the matrix material, at least a portion of the fillers comprising metallic fillers (col. 3, lines 65-66).

Note that the hard roller core 1 comprises metal (abstract, lines 1-2), and the metallic fillers comprises metal (col. 3, line 65), note that the roller is adapted (can be used) for smoothing paper webs (col. 1, lines 7-8), the metallic fillers are metal fibers (col. 3, line 65), a portion of the fibers is aligned in the axial direction (see figure 5), at least a portion of the fibers comprises a predominant portion of the fibers (see figure 5), at least a portion of the fibers is aligned in the radial direction (see figure 5), at least a portion of the fibers is aligned in statistical distribution (see figure 5), the fibers are arranged in one of a fiber layer and radially sequentially arranged fiber layers (see figure 5), the elastic layer further comprises additional fillers (col. 3, lines 39-68) arranged in the elastic matrix 2, the additional fillers comprise fibers including at least one of carbon and glass fibers (col. 3, lines 65-66), the metallic fillers are arranged to extend up to a radially outer surface of the elastic matrix material (see figure 5), a thermal conductivity of the metallic fillers is considerably higher than a thermal conductivity of the matrix material (the fillers are made of metal, hence having a higher conductivity), the metallic fillers are arranged to extend radially inwardly up to a surface of the hard roller core 1, the thermal expansion coefficient of the metallic fillers is smaller than a thermal expansion coefficient of the matrix material (the fillers are made of metal, hence having a smaller thermal expansion coefficient), the roller core and the fillers are made of metal and have substantially the same thermal expansion coefficient, the matrix material comprises a plastic material (col. 3, lines

50-52), the matrix material comprises a resin-hardener combination (col. 3, lines 50-52), a concentration of the metallic fillers is substantially uniformly distributed within the elastic matrix material (col. 3, lines 50-52),

With respect to Claim 21, note that the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

5. **Claims 1-3, 11, 14-27, 29, 31, 36, 38, 39, and 41** are rejected under 35 U.S.C. 102(b) as being anticipated by Brouwer (5,735,388).

Brouwer teaches the following in *Fig. 5*: an elastic roller comprising: a hard roller core **120**, an elastic (all materials inherently have a modulus of elasticity) coating layer **104** at an outer side of the hard roller core **120**, the elastic coating layer **104** comprising an elastic matrix material and fillers **102** imbedded in the matrix material **104**.

Note the metallic fillers **102** penetrate the radially outer surface and the radially outer surface of the elastic matrix material **104** is coated with metal **102** (see outer surface of matrix material **104** which is coated with metal **102**).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 12 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sukenik (3,852,862).

Sukenik teaches the invention cited above with the exception of the fillers being made of “metal-coated” fibers.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, the particular structure of the fiber is clearly a matter of designed choice, wherein no significant problems are solved by using a “metal-coated” fiber versus the metal fiber taught by the prior art. It appears that metal fibers would equally as well as “metal-coated” fibers.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (703) 306-5965. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on (703) 308-1806. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3579 for regular communications and (703) 305-3579 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5648.


MJ

October 22, 2001


S. THOMAS HUGHES
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